

Serial No.: 09/121,239
Filed: July 23, 1998
Group Art Unit: 1635

AMENDMENT
Docket No. GP091-02.UT

Remarks

Claims 1-3, 5-10, 12, 14-18, and 20-27 are pending. All of the claims stand rejected. Claims 5-10, 12, 14, 18, and 20-27 were objected to as being dependent on a rejected base claim.

Applicants thank the Examiner for her consideration of the previously filed amendment and response filed on May 28 and September 8, 2003, and her subsequent withdrawal of the claim rejections under 35 USC § 112, first paragraph and 35 USC § 102(b), and of the Notice of Non-responsive Amendment.

In this Office Action, the Examiner has presented new grounds for rejection. Specifically, claims 1-3, 15, 16, and 17 were rejected under 35 USC § 112, second paragraph, and claim 15 was rejected under 35 USC § 102(b) based on the independently cited US Patent Nos. 5,399,491 and 5,424,413. Applicants thank the Examiner for her careful reconsideration of this application.

In this amendment, claims 1, 2, 3, 15, 16, and 17 have been amended. No new matter has been added by these amendments which are supported by the originally filed disclosure. Entry of this amendment and reconsideration of this application is respectfully requested.

Rejections under 35 U.S.C. § 112

Claims 1-3, 15, 16, and 17 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. The Examiner has objected to the terms "nucleic acid polymerase activity" and "polymerase activity" as unclear because they refer to an activity.

Applicants thank the Examiner for her suggestion of replacement language which has been used in amending claims 1-3, 16, and 17. In claim 1, "enzyme having" has been inserted before "nucleic acid polymerase activity." Claims 2, 3, 16 and 17 have been similarly amended to recite "enzyme having nucleic acid polymerase activity" before the specified activities. Claims 3 and 16 have been amended by inserting the phrase "enzyme having nucleic acid polymerase activity comprising" twice, before the RNA polymerase activity (i.e., of an RNA polymerase enzyme), and before the DNA-

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directed DNA polymerase activity and RNA-directed DNA polymerase activity (i.e., of a reverse transcriptase enzyme). Claim 17 has been amended to include the phrase "enzyme having nucleic acid polymerase activity comprising" and grammar corrections consistent with the inserted phrase. Support for these amendments is found in the disclosure, e.g., at page 10, lines 10 and 24, page 11, lines 12-13, page 18, lines 1-4, including the description of embodiments in the examples, such as in Example 2 (beginning at page 27, line 25 and particularly at page 28, lines 10-11).

Claim 15 was rejected as indefinite because of a grammatical error and the format of the Markush claim. Claim 15 has been amended to delete the grammatical error and to amend the Markush claim language to "wherein a nucleotide sequence of the one or more oligonucleotides is selected from the group consisting of" before the SEQ ID NOs.

Based on these amendments, Applicants respectfully request withdrawal of the rejections based on 35 USC §112, and seek allowance of amended claims 1-3, 15, 16, and 17.

Rejections under 35 U.S.C. § 102(b)

Claim 15 has been rejected under 35 U.S.C. § 102(b) as anticipated by two independently cited references (US Patent Nos. 5,399,491 and 5,424,413).

Amended claim 15 has deleted "have" as discussed above. Amended claim 15 refers to "a nucleotide sequence of the one or more oligonucleotides [that] is selected from the group consisting of" the sequences identified by SEQ ID NOs. Therefore, to the extent that the rejections under 35 U.S.C. § 102(b) are based on the interpretation that "have" is considered to mean "comprising", amended claim 15 has removed that basis for rejection.

Claim 15 has been rejected based on the disclosure of Kacian et al., US Patent No. 5,399,491, with respect to SEQ ID NO:5. Amended claim 15 has deleted SEQ ID NO:5, which renders this rejection moot.

Claim 15 has been rejected under 35 U.S.C. § 102(b) as anticipated by Hogan et al., US Patent

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No. 5,424,413, with respect to SEQ ID NO:9. The Examiner stated that Hogan et al.'s SEQ ID NO:17 "is 100% identical" to Applicants' SEQ ID NO:9, presumably based in part on the interpretation of "have" to mean "comprising" (discussed above). Amended claim 15 has deleted "have", removing that basis for the rejection. Also, Applicants' following comments demonstrate that SEQ ID NO:9 is not identical to Hogan et al.'s SEQ ID NO:17. SEQ ID NO:9 is a 25-mer, whereas Hogan et al.'s SEQ ID NO:17 is a 56-mer that contains additional nucleotide sequence. Although Applicant's SEQ ID NO:9 is contained within Hogan et al.'s SEQ ID NO:17 (nucleotides 3 to 27), Hogan et al. do not disclose this sub-sequence independently. In fact, Hogan et al.'s invention would not function using Applicant's SEQ ID NO:9. Hogan et al. describe three oligonucleotides, one of which is SEQ ID NO:17, in which "different strands were designed to contain a probe region specific for one of the translocated chromosome 22 regions as well as an arm region complementary to the arm region of the universal detection oligomer." (Column 18, lines 25-29.) Hogan et al.'s Fig. 12b illustrates a three-stranded structure that includes SEQ ID NO:17 (shown as the upper left strand of the structure). This structure must form to detect the appropriate target sequence (the lower strand of the structure in Fig. 12b) as described by Hogan et al. (column 18, lines 30 to 68). It is clear from Hogan et al.'s disclosure that a probe of SEQ ID NO:9 (a sub-sequence of less than half of SEQ ID NO:17) would not function in Hogan et al.'s invention because it would not form the structure shown in Fig. 12b. Thus, Hogan et al. do not disclose, or even suggest, Applicants' SEQ ID NO:9. Therefore, Applicants respectfully submit that Hogan et al.'s disclosure does not anticipate amended claim 15.

Based on these amendments and comments, Applicants respectfully request allowance of amended claim 15.

Objected to Claims

Claims 5-10, 12, 14, 18 and 20-27 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base

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claim and any intervening claims. Because Applicants believe that the amendments to claims 1, 2, 3, 15, 16, and 17 place the independent claims from which these claims depend in condition for allowance, Applicants have not rewritten claims 5-10, 12, 14, 18 and 20-27 in independent form. Applicants respectfully seek allowance of claims 5-10, 12, 14, 18 and 20-27.

Conclusion

In view of the foregoing amendments and remarks, the Applicants respectfully submit that the claims are in condition for allowance. Accordingly, entry of this amendment and allowance of the application is earnestly solicited. The undersigned has made a good-faith effort to address all the points raised in this Office Action and to place the application in condition for allowance. If minor matters remain that could be resolved by telephone interview, the Examiner is invited to contact the undersigned at the number below.

Applicants believes there is no fee due in connection with the filing of this Amendment. However, if Applicants are in error and a fee is required, please debit Deposit Account No. 07-0835 the appropriate amount.

Respectfully submitted,

Date: March 22, 2004

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